

NR

## PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION  
(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner  
US Department of Commerce  
United States Patent and Trademark  
Office, PCT  
2011 South Clark Place Room  
CP2/5C24  
Arlington, VA 22202  
ETATS-UNIS D'AMERIQUE  
in its capacity as elected Office

Date of mailing: 23 November 2000 (23.11.00)	
International application No.: PCT/AU00/00437	Applicant's or agent's file reference: 2290362/MRO
International filing date: 11 May 2000 (11.05.00)	Priority date: 13 May 1999 (13.05.99)
Applicant: PANACCIO, Michael et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International preliminary Examining Authority on:  
11 September 2000 (11.09.00)

☐ in a notice effecting later election filed with the International Bureau on:  
\_\_\_\_\_

2. The election ☒ was

☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer:  J. Zahra Telephone No.: (41-22) 338.83.38
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# PATENT COOPERATION TREATY

WO 00/69904  
PCT/AU00/00437

From the INTERNATIONAL BUREAU

PCT

## NOTICE INFORMING THE APPLICANT OF THE COMMUNICATION OF THE INTERNATIONAL APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

To:

OLIVE, Mark, R.  
Davies Collison Cave  
1 Little Collins Street  
Melbourne, VIC 3000  
AUSTRALIE

TUESDAY, - 5 DEC 2000

Date of mailing (day/month/year) 23 November 2000 (23.11.00)		
Applicant's or agent's file reference 2290362/MRO		IMPORTANT NOTICE
International application No. PCT/AU00/00437	International filing date (day/month/year) 11 May 2000 (11.05.00)	Priority date (day/month/year) 13 May 1999 (13.05.99)
Applicant PFIZER PRODUCTS INC et al		

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:  
AG,AU,DZ,KP,KR,US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:

AE,AL,AM,AP,AT,AZ,BA,BB,BG,BR,BY,CA,CH,CN,CR,CU,CZ,DE,DK,DM,EA,EE,EP,ES,FI,GB,GD,  
GE,GH,GM,HR,HU,ID,IL,IN,IS,JP,KE,KG,KZ,LC,LK,LR,LS,LT,LU,LV,MA,MD,MG,MK,MN,MW,MX,  
NO,NZ,OA,PL,PT,RO,RU,SD,SE,SG,SI,SK,SL,TJ,TM,TR,TT,TZ,UA,UG,UZ,VN,YU,ZA,ZW

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on  
23 November 2000 (23.11.00) under No. WO 00/69904

### REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

### REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. (41-22) 740.14.35	Authorized officer  J. Zahra  Telephone No. (41-22) 338.83.38
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## PCT REQUEST

2290362/MRO

Original (for SUBMISSION) - printed on 11.05.2000 01:22:52 PM

<b>0</b>	<b>For receiving Office use only</b>	
<b>0-1</b>	International Application No.	
<b>0-2</b>	International Filing Date	
<b>0-3</b>	Name of receiving Office and "PCT International Application"	
<b>0-4</b>	<b>Form - PCT/RO/101 PCT Request</b>	
<b>0-4-1</b>	Prepared using	<b>PCT-EASY Version 2.90 (updated 08.03.2000)</b>
<b>0-5</b>	<b>Petition</b> The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
<b>0-6</b>	Receiving Office (specified by the applicant)	<b>Australian Patent Office (RO/AU)</b>
<b>0-7</b>	Applicant's or agent's file reference	<b>2290362/MRO</b>
<b>I</b>	<b>Title of invention</b>	<b>NOVEL LAWSONIA SSP. GENE AND USES THEREFOR IV</b>
<b>II</b>	<b>Applicant -</b>	
<b>II-1</b>	This person is:	<b>applicant only</b>
<b>II-2</b>	Applicant for	<b>all designated States except US</b>
<b>II-4</b>	Name	<b>PFIZER PRODUCTS INC</b>
<b>II-5</b>	Address:	<b>Eastern Point Road Groton, CT 06340 United States of America</b>
<b>II-6</b>	State of nationality	<b>US</b>
<b>II-7</b>	State of residence	<b>US</b>
<b>III-1</b>	<b>Applicant and/or inventor</b>	
<b>III-1-1</b>	This person is:	<b>applicant only</b>
<b>III-1-2</b>	Applicant for	<b>all designated States except US</b>
<b>III-1-4</b>	Name	<b>AGRICULTURE VICTORIA SERVICES PTY LTD</b>
<b>III-1-5</b>	Address:	<b>475 Mickleham Road Attwood, Victoria 3049 Australia</b>
<b>III-1-6</b>	State of nationality	<b>AU</b>
<b>III-1-7</b>	State of residence	<b>AU</b>

## PCT REQUEST

2290362/MRO

Original (for SUBMISSION) - printed on 11.05.2000 01:22:52 PM

III-2	<b>Applicant and/or inventor</b>	
III-2-1	This person is:	applicant only
III-2-2	Applicant for	all designated States except US
III-2-4	Name	PIG RESEARCH AND DEVELOPMENT CORPORATION
III-2-5	Address:	3rd Floor Industry House 10 National Circuit Barton, Australian Capital Territory 2600 Australia
III-2-6	State of nationality	AU
III-2-7	State of residence	AU
III-3	<b>Applicant and/or inventor</b>	
III-3-1	This person is:	applicant and inventor
III-3-2	Applicant for	US only
III-3-4	Name (LAST, First)	PANACCIO, Michael
III-3-5	Address:	112 Hill Road North Balwyn, Victoria 3104 Australia
III-3-6	State of nationality	AU
III-3-7	State of residence	AU
III-4	<b>Applicant and/or inventor</b>	
III-4-1	This person is:	applicant and inventor
III-4-2	Applicant for	US only
III-4-4	Name (LAST, First)	ROSEY, Everett Lee
III-4-5	Address:	457 Route 164 Preston, CT 06365 United States of America
III-4-6	State of nationality	US
III-4-7	State of residence	US
III-5	<b>Applicant and/or inventor</b>	
III-5-1	This person is:	applicant and inventor
III-5-2	Applicant for	US only
III-5-4	Name (LAST, First)	SINISTAJ, Meri
III-5-5	Address:	3/60 Gourlay Street East St. Kilda, Victoria 3183 Australia
III-5-6	State of nationality	AU
III-5-7	State of residence	AU

## PCT REQUEST

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Original (for SUBMISSION) - printed on 11.05.2000 01:22:52 PM

III-6	<b>Applicant and/or inventor</b>	
III-6-1	This person is:	applicant and inventor
III-6-2	Applicant for	US only
III-6-4	Name (LAST, First)	HASSE, Detlef
III-6-5	Address:	4 Scullin Court Sunbury, Victoria 3429 Australia
III-6-6	State of nationality	AU
III-6-7	State of residence	AU
III-7	<b>Applicant and/or inventor</b>	
III-7-1	This person is:	applicant and inventor
III-7-2	Applicant for	US only
III-7-4	Name (LAST, First)	PARSONS, Jim
III-7-5	Address:	11 Kanandah Court Research, Victoria 3095 Australia
III-7-6	State of nationality	AU
III-7-7	State of residence	AU
III-8	<b>Applicant and/or inventor</b>	
III-8-1	This person is:	applicant and inventor
III-8-2	Applicant for	US only
III-8-4	Name (LAST, First)	ANKENBAUER, Robert Gerard
III-8-5	Address:	104 Castle Hill Road Pawcatuck, CT 06379 United States of America
III-8-6	State of nationality	US
III-8-7	State of residence	US
IV-1	<b>Agent or common representative; or address for correspondence</b> The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent
IV-1-1	Name (LAST, First)	OLIVE, Mark, R
IV-1-2	Address:	DAVIES COLLISON CAVE 1 LITTLE COLLINS STREET MELBOURNE, Victoria 3000 Australia
IV-1-3	Telephone No.	+61 3 9254 2777
IV-1-4	Facsimile No.	+61 3 9254 2770
IV-2	<b>Additional agent(s)</b>	additional agent(s) with same address as first named agent
IV-2-1	Name(s)	SLATTERY, John, M; CAINE, Michael, J

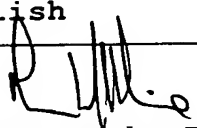
## PCT REQUEST

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<b>V</b>	<b>Designation of States</b>	
<b>V-1</b>	Regional Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	<p>AP: GH GM KE LS MW SD SL SZ TZ UG ZW and any other State which is a Contracting State of the Harare Protocol and of the PCT</p> <p>EA: AM AZ BY KG KZ MD RU TJ TM and any other State which is a Contracting State of the Eurasian Patent Convention, and of the PCT</p> <p>EP: AT BE CH&amp;LI CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE and any other State which is a Contracting State of the European Patent Convention and of the PCT</p> <p>OA: BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG and any other State which is a member State of OAPI and a Contracting State of the PCT</p>
<b>V-2</b>	National Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	<p>AE AG AL AM AT AU AZ BA BB BG BR BY CA CH&amp;LI CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW</p>
<b>V-5</b>	<b>Precautionary Designation Statement</b> In addition to the designations made under items V-1, V-2 and V-3, the applicant also makes under Rule 4.9(b) all designations which would be permitted under the PCT except any designation(s) of the State(s) indicated under item V-6 below. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit.	
<b>V-6</b>	<b>Exclusion(s) from precautionary designations</b>	NONE
<b>VI-1</b>	<b>Priority claim of earlier national application</b>	
VI-1-1	Filing date	13 May 1999 (13.05.1999)
VI-1-2	Number	60/133,973
VI-1-3	Country	US
<b>VII-1</b>	<b>International Searching Authority Chosen</b>	Australian Patent Office (ISA/AU)

## PCT REQUEST

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VIII	Check list	number of sheets	electronic file(s) attached
VIII-1	Request	5	-
VIII-2	Description (excluding sequence listing part)	62	-
VIII-3	Claims	6	-
VIII-4	Abstract	1	2290362.txt
VIII-5	Drawings	3	-
VIII-6	Sequence listing part of description	9	-
VIII-7	TOTAL	86	
	Accompanying items	paper document(s) attached	electronic file(s) attached
VIII-8	Fee calculation sheet	✓	-
VIII-9	Separate signed power of attorney	✓	-
VIII-15	Nucleotide and/or amino acid sequence listing in computer readable form		separate diskette
VIII-16	PCT-EASY diskette	-	diskette
VIII-18	Figure of the drawings which should accompany the abstract		
VIII-19	Language of filing of the international application	English	
IX-1	Signature of applicant or agent		
IX-1-1	Name (LAST, First)	OLIVE, Mark, R	

## FOR RECEIVING OFFICE USE ONLY

10-1	Date of actual receipt of the purported international application	
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/AU
10-6	Transmittal of search copy delayed until search fee is paid	

## FOR INTERNATIONAL BUREAU USE ONLY

11-1	Date of receipt of the record copy by the International Bureau	
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# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

**PCT**

*Primary*

To: Agent :

DAVIES COLLISON CAVE  
1 Little Collins Street  
MELBOURNE VIC 3000

NOTIFICATION OF RECEIPT  
OF DEMAND BY COMPETENT INTERNATIONAL  
PRELIMINARY EXAMINING AUTHORITY

(PCT Rule 59.3(e) and 61.1(b), first sentence  
and Administrative Instructions, Section 601(a))

Date of mailing 18 SEP 2000  
(day/month/year) (18/9/00)

Applicant's or agent's file reference  
2290362

## IMPORTANT NOTIFICATION

International application No.  
PCT/AU00/00437

International filing date (day/month/year)  
11 MAY 2000 (11/5/00)

Priority date (day/month/year)  
13 MAY 1999 (13/5/99)

Applicant

Pfizer Products Inc. (et al.)

1. The applicant is hereby **notified** that this International Preliminary Examining Authority considers the following date as the date of receipt of the demand for international preliminary examination of the international application:

11 SEP 2000 (11/9/00)

2. That date of receipt is:



the actual date of receipt of the demand by this Authority (Rule 61.1(b)).



the actual date of receipt of the demand on behalf of this Authority (Rule 59.3(e)).



the date on which this Authority has, in response to the Invitation to correct defects in the demand (Form PCT/IPEA/404), received the required corrections.

3. ☐ **Attention:** That date of receipt is **AFTER** the expiration of 19 months from the priority date. Consequently, the elections(s) made in the demand does (do) not have the effect of postponing the entry into the national phase until 30 months from the priority date (or later in some Offices) (Article 39(1)). Therefore, the acts for entry into the national phase must be performed within 20 months from the priority date (or later in some Offices) (Article 22). For details, see the *PCT Applicant's Guide, Volume II*.



(If applicable) This notification confirms the information given by telephone, facsimile transmission or in person on:

4. Only where paragraph 3 applies, a copy of this notification has been sent to the International Bureau.

Name and mailing address of the IPEA/AU  
AUSTRALIAN PATENT OFFICE  
PO BOX 200, WODEN ACT 2606, AUSTRALIA  
E-mail: pct@ipaaustralia.gov.au  
Facsimile No. 02 6285 3929

Authorized officer

JOSEPH BRESIC

Telephone No.

02 6283 2357



The demand must be filed directly with the competent International Preliminary Examining Authority or, if two or more Authorities are competent, with the one chosen by the applicant. The full name or two-letter code of that Authority may be indicated by the applicant on the line below.

IPEA/ \_\_\_\_\_

**PCT**

**CHAPTER II**

**DEMAND**

under Article 31 of the Patent Cooperation Treaty:  
The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty and hereby elects all eligible States (except where otherwise indicated).

For International Preliminary Examining Authority use only	
Identification of IPEA	Date of receipt of DEMAND
<b>Box No. I IDENTIFICATION OF THE INTERNATIONAL APPLICATION</b>	
Applicant's or agent's file reference 2290362/MRO	
International application No. PCT/AU00/00437	International filing date (day/month/year) 11 May. 2000 (11/5/00)
(Earliest) Priority date (day/month/year) 13 May. 1999 (13/5/99)	
Title of invention Lawsonia derived gene and related FlgE polypeptides, peptides and proteins and their uses	
<b>Box No. II - APPLICANT(S)</b>	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) PFIZER PRODUCTS INC Eastern Point Road Groton, CT 06340 United States of America	Telephone No.:  Facsimile No.:  Teleprinter No.:
State (that is, country) of nationality: UNITED STATES OF AMERICA	State (that is, country) of residence: UNITED STATES OF AMERICA
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) AGRICULTURE VICTORIA SERVICES PTY. LTD. 475 Mickleham Road Attwood VIC 3049 Australia	
State (that is, country) of nationality: AUSTRALIA	State (that is, country) of residence: AUSTRALIA
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) PIG RESEARCH AND DEVELOPMENT CORPORATION 3 <sup>rd</sup> Floor, Industry House 10 National Circuit Barton, Australian Capital Territory 2600 Australia	
State (that is, country) of nationality: AUSTRALIA	State (that is, country) of residence: AUSTRALIA
<input checked="" type="checkbox"/> Further applicants are indicated on a continuation sheet.	

## Continuation of Box No. II APPLICANT(S)

*If none of the following sub-boxes is used, this sheet should not be included in the demand.*

Name and address: *(Family name followed by given name: for a legal entity, full official designation. The address must include postal code and name of country.)*

PANACCIO, Michael  
112 Hill Road  
North Balwyn, Victoria 3104  
Australia

State *(that is, country)* of nationality:  
AUSTRALIA

State *(that is, country)* of residence:  
AUSTRALIA

Name and address: *(Family name followed by given name: for a legal entity, full official designation. The address must include postal code and name of country.)*

ROSEY, Everett Lee  
457 Route 164  
Preston, CT 06365  
United States of America

State *(that is, country)* of nationality:  
UNITED STATES OF AMERICA

State *(that is, country)* of residence:  
UNITED STATES OF AMERICA

Name and address: *(Family name followed by given name: for a legal entity, full official designation. The address must include postal code and name of country.)*

SINISTAJ, Meri  
3/60 Gourlay Street  
East St. Kilda, Victoria 3183  
Australia

State *(that is, country)* of nationality:  
AUSTRALIA

State *(that is, country)* of residence:  
AUSTRALIA

Name and address: *(Family name followed by given name: for a legal entity, full official designation. The address must include postal code and name of country.)*

HASSE, Detlef  
4 Scullin Court  
Sunbury, Victoria 3429  
Australia

State *(that is, country)* of nationality:  
Australia

State *(that is, country)* of residence:  
Australia

☒ Further applicants are indicated on another continuation sheet.

## Continuation of Box No. II APPLICANT(S)

*If none of the following sub-boxes is used, this sheet should not be included in the demand.*

Name and address: *(Family name followed by given name: for a legal entity, full official designation. The address must include postal code and name of country.)*

PARSONS, Jum  
11 Kanandah Court  
Research, Victoria 3095  
Australia

State *(that is, country)* of nationality:  
AUSTRALIA

State *(that is, country)* of residence:  
AUSTRALIA

Name and address: *(Family name followed by given name: for a legal entity, full official designation. The address must include postal code and name of country.)*

ANKENBAUER, Robert Gerard  
104 Castle Hill Road  
Pawcatuck, CT 06379  
United States of America

State *(that is, country)* of nationality:  
UNITED STATES OF AMERICA

State *(that is, country)* of residence:  
UNITED STATES OF AMERICA

Name and address: *(Family name followed by given name: for a legal entity, full official designation. The address must include postal code and name of country.)*

State *(that is, country)* of nationality:

State *(that is, country)* of residence:

Name and address: *(Family name followed by given name: for a legal entity, full official designation. The address must include postal code and name of country.)*

State *(that is, country)* of nationality:

State *(that is, country)* of residence:

☐ Further applicants are indicated on another continuation sheet.

**Box No. III AGENT OR COMMON REPRESENTATIVE: OR ADDRESS FOR CORRESPONDENCE**

The following person is ☒ agent ☐ common representative  
 and ☒ has been appointed earlier and represents the applicant(s) also for international preliminary examination.  
☐ is hereby appointed and any earlier appointment of (an) agent(s)/common representative is hereby revoked.  
☐ is hereby appointed, specifically for the procedure before the International Preliminary Examining Authority, in addition to the agent(s)/common representative appointed earlier.

Name and address: (Family name followed by given name: for a legal entity, full official designation.  
 The address must include postal code and name of country.)

OLIVE, Mark R  
 SLATTERY, John M  
 CAINE, Michael J

DAVIES COLLISON CAVE  
 1 Little Collins Street  
 Melbourne, Victoria 3000  
 Australia

Telephone No.:  
 +61 3 9254 2777

Facsimile No.:  
 +61 3 9254 2770

Teleprinter No.:

☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

**Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION****Statement concerning amendments:\***

1. The applicant wishes the international preliminary examination to start on the basis of:

- ☒ the international application as originally filed
- the description ☒ as originally filed  
☐ as amended under Article 34
- the claims ☒ as originally filed  
☐ as amended under Article 19 (together with any accompanying statement)  
☐ as amended under Article 34
- the drawings ☒ as originally filed  
☐ as amended under Article 34

2. ☐ The applicant wishes any amendment to the claims under Article 19 to be considered as reversed.

3. ☐ The applicant wishes the start of the international preliminary examination to be postponed until the expiration of 20 months from the priority date unless the International Preliminary Examining Authority receives a copy of any amendments made under Article 19 or a notice from the applicant that he does not wish to make such amendments (Rule 69. 1(d)). *This check-box may be marked only where the time limit under Article 19 has not yet expired.*

- Where no check-box is marked, international preliminary examination will start on the basis of the international application as originally filed or, where a copy of amendments to the claims under Article 19 and/or amendments of the international application under Article 34 are received by the International Preliminary Examining Authority before it has begun to draw up a written opinion or the international preliminary examination report, as so amended.

**Language for the purposes of international preliminary examination: ENGLISH**

- ☒ which is the language in which the international application was filed.  
☐ which is the language of a translation furnished for the purposes of international search.  
☐ which is the language of publication of the international application.  
☐ which is the language of the translation (to be) furnished for the purposes of international preliminary examination.

**Box No. V ELECTION OF STATES**

The applicant hereby elects all eligible States (*that is, all States which have been designated and which are bound by Chapter II of the PCT*)

Excluding the following States which the applicant wishes not to elect:

**Box No. VI CHECK LIST**

The demand is accompanied by the following elements, in the language referred to in Box No. IV, for the purposes of international preliminary examination:

For International Preliminary  
Examining Authority use only

- |    |  |   |   |        |
|----|--|---|---|--------|
| 1. | translation of international application                                 | : |   | sheets |
| 2. | amendments under Article 34  | : |   | sheets |
| 3. | copy (or, where required, translation) of<br>amendments under Article 19 | : |   | sheets |
| 4. | copy (or, where required, translation) of<br>statement under Article 19  | : |   | sheets |
| 5. | letter   | : | 1 | sheets |
| 6. | other ( <i>specify</i> )   | : |   | sheets |

received	not received
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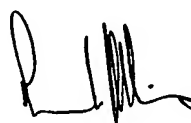
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

The demand is also accompanied by the item(s) marked below:

- |   |  |
|---|--|
| 1. <input type="checkbox"/> fee calculation sheet   | 4. <input type="checkbox"/> statement explaining lack of signature                                     |
| 2. <input type="checkbox"/> separate signed power of attorney                               | 5. <input type="checkbox"/> nucleotide and or amino acid sequence listing in<br>computer readable form |
| 3. <input type="checkbox"/> copy of general power of attorney:<br>reference number, if any: | 6. <input type="checkbox"/> other ( <i>specify</i> ):  |

**Box No. VII SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE**

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the demand).



OLIVE, Mark R  
For and on behalf of  
the applicant/s

For International Preliminary Examining Authority use only

1. Date of actual receipt of DEMAND:

2. Adjusted date of receipt of demand due  
to CORRECTIONS under Rule 60.1(b):

3. ☐ The date of receipt of the demand is AFTER the expiration of 19 months  
from the priority date and item 4 or 5, below, does not apply.

☐ The applicant has been  
informed accordingly.

4. ☐ The date of receipt of the demand is WITHIN the period of 19 months from the priority dated as extended by virtue of  
Rule 80.5.

5. ☐ Although the date of receipt of the demand is after the expiration of 19 months from the priority dated, the delay in arrival  
is EXCUSED pursuant to Rule 82.

For International Bureau use only

Demand received from IPEA on:

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2290362	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).	
International application No. PCT/AU00/00437	International filing date (day/month/year) 11 May 2000	Priority Date (day/month/year) 13 May 1999
International Patent Classification (IPC) or national classification and IPC Int. Cl. <sup>7</sup> C07K 14/195, C12N 15/31, A61K 39/02, A61P 1/00, C07K 16/12, C12Q 1/04, G01N 33/537		
Applicant PIG RESEARCH AND DEVELOPMENT CORPORATION et al		

1.	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.																
2.	This REPORT consists of a total of 3 sheets, including this cover sheet.  <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  These annexes consist of a total of sheet(s).																
3.	This report contains indications relating to the following items: <table border="0"> <tr> <td>I</td> <td><input checked="" type="checkbox"/> Basis of the report</td> </tr> <tr> <td>II</td> <td><input type="checkbox"/> Priority</td> </tr> <tr> <td>III</td> <td><input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td>IV</td> <td><input type="checkbox"/> Lack of unity of invention</td> </tr> <tr> <td>V</td> <td><input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td>VI</td> <td><input type="checkbox"/> Certain documents cited</td> </tr> <tr> <td>VII</td> <td><input type="checkbox"/> Certain defects in the international application</td> </tr> <tr> <td>VIII</td> <td><input type="checkbox"/> Certain observations on the international application</td> </tr> </table>	I	<input checked="" type="checkbox"/> Basis of the report	II	<input type="checkbox"/> Priority	III	<input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	IV	<input type="checkbox"/> Lack of unity of invention	V	<input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	VI	<input type="checkbox"/> Certain documents cited	VII	<input type="checkbox"/> Certain defects in the international application	VIII	<input type="checkbox"/> Certain observations on the international application
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VI	<input type="checkbox"/> Certain documents cited																
VII	<input type="checkbox"/> Certain defects in the international application																
VIII	<input type="checkbox"/> Certain observations on the international application																

Date of submission of the demand 11 September 2000	Date of completion of the report 27 September 2000
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer  K. LEVER Telephone No. (02) 6283 2254

**I Basis of the report****1. With regard to the elements of the international application:\***

- ☒ the international application as originally filed.
- ☐ the description,        pages , as originally filed,  
   pages , filed with the demand,  
   pages , received on    with the letter of
- ☐ the claims,        pages , as originally filed,  
   pages , as amended (together with any statement) under Article 19,  
   pages , filed with the demand,  
   pages , received on    with the letter of
- ☐ the drawings,        pages , as originally filed,  
   pages , filed with the demand,  
   pages , received on    with the letter of
- ☐ the sequence listing part of the description:  
   pages , as originally filed  
   pages , filed with the demand  
   pages , received on    with the letter of

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, was on the basis of the sequence listing:**

- ☐ contained in the international application in written form.
- ☒ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

**4. ☐ The amendments have resulted in the cancellation of:**

- ☐ the description,        pages
- ☐ the claims,        Nos.
- ☐ the drawings,        sheets/fig.

**5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\***

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims 1-39	YES
	Claims	NO
Inventive step (IS)	Claims 1-39	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-39	YES
	Claims	NO

**2. Citations and explanations (Rule 70.7)****Citations:**

D1: Veterinary Pathology (March 1998) 35 (2) 153-6. Boye M et al. 'Specific Detection of *Lawsonia intracellularis* in Porcine Proliferative Enteropathy Inferred from Fluorescent rRNA In Situ Hybridization'.

D2: WO 9639629 A1 (NOBL LABORATORIES INC) 12 December 1996.

D3: WO 9720050 A1 (PIG RESEARCH & DEVELOPMENT CORP ET AL) 5 June 1997.

**Explanation:**

The present application is directed to an isolated or recombinant immunogenic polypeptide, which comprises, mimics or cross-reacts with a B-cell or T-cell epitope of the Flagellar Hook (FlgE) polypeptide derived from *Lawsonia spp.* The above-cited documents all refer to *Lawsonia spp* but do not disclose or suggest the FlgE polypeptide. Sequence 1 of the current application is not disclosed in the cited documents.

Therefore it is considered that claims 1-39 are novel, inventive and demonstrate industrial applicability.



# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>2290362/MRO</b>	<div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"><b>FOR FURTHER ACTION</b></div> <div>see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.</div> </div>	
International application No. <b>PCT/AU00/00437</b>	International filing date ( <i>day/month/year</i> ) <b>11 May 2000</b>	(Earliest) Priority Date ( <i>day/month/year</i> ) <b>13 May 1999</b>
Applicant <b>PIG RESEARCH AND DEVELOPMENT CORPORATION et al</b>		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the ~~language~~, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☒ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the title, ☐ ~~the text is approved as submitted by the applicant.~~

☒ the text has been established by this Authority to read as follows:

***Lawsonia* derived gene and related FlgE polypeptides, peptides and proteins and their uses.**

5. With regard to the abstract, ☒ the text is approved as submitted by the applicant

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☒ None of the figures

☐ because the applicant failed to suggest a figure

☐ because this figure better characterizes the invention

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU00/00437

**A. CLASSIFICATION OF SUBJECT MATTER**Int. Cl. <sup>7</sup>: C07K 14/195, C07H 21/04, A61K 39/02, A61P 1/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 STN: WPIDS- Lawsonia, MEDLINE, HCA, BIOSIS- Lawsonia, polypeptide, gene, protein, peptide, immunogen, recombin  
 ANGIS: sequence search

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	Veterinary Pathology (March 1998) 35 (2) 153-6. Boye M et al. 'Specific Detection of <i>Lawsonia intracellularis</i> in Porcine Proliferative Enteropathy Inferred from Fluorescent rRNA In Situ Hybridization'. See whole document	30-39
A	WO 9639629 A1 (NOBL LABORATORIES INC) 12 December 1996. See whole document	1-39
A	WO 9720050 A1 (PIG RESEARCH & DEVELOPMENT CORP) 5 June 1997. See whole document.	1-39

☐ Further documents are listed in the continuation of Box C ☒ See patent family annex

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 27 June 2000	Date of mailing of the international search report 05 JUL 2000
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized officer  K. LEVER Telephone No : (02) 6283 2254

INTERNATIONAL SEARCH REPORT  
Information on patent family members

International application No.  
PCT/AU00/00437

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report				Patent Family Member			
WO	9639629	AU	62627/96	CA	2222643	EP	843818
		US	5885823	US	5714375		
WO	9720050	AU	76141/96	CA	2236574	EP	871735
END OF ANNEX							